Reg. No. :

Question Paper Code: 31774

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2017

Seventh Semester

Mechanical Engineering

01UME704 - COMPUTER INTEGRATED MANUFACTURING

(Regulation 2013)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. List the techniques of geometric modeling.

2. Define pivot point rotation in transformation.

3. What are the components of CIM?

4. Define network topology and explain its classification.

5. Define Part family.

6. Why CAPP systems are called as variant system?

7. List the primary functions of shop floor control.

8. How does FMS classified based on level of flexibility?

9. List the inputs to the MRP system.

10. Differentiate lean production and agile manufacturing.

PART - B (5 x 16 = 80 Marks)

11. (a) Explain about the drawing features in CAD package.   (16)

Or

(b) Discuss about surface modeling in detail with suitable sketch.   (16)

12. (a) (i) Sketch and explain CASA/SME's model of CIM.   (10)

    (ii) Discuss the synchronous and asynchronous data transmission in CIM.   (6)

Or

(b) (i) Briefly discuss about the network topologies.   (8)

    (ii) Explain about the seven layers of OSI model net.   (8)

13. (a) (i) Demonstrate in brief of the following part classification and coding techniques.
                                                                    (8)

    (ii) Explain the benefits of implementing a group technology in a firm.   (8)

Or

(b) Discuss about the two main approaches of CAPP systems with suitable sketch.   (16)

14. (a) (i) Explain the major components of an FMS in detail.   (8)

    (ii) Discuss the various aspects of FMS layout configurations.   (8)

Or

(b) Discuss in detail about the phases of shop floor control system.   (16)

15. (a) Explain the different strategies of process control.   (16)

Or

(b) (i) Write short notes on cost planning and control.   (8)

    (ii) Briefly discuss about the types of inventory systems.   (8)

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